

## **Baltimore-Washington Rail Intermodal Facility**

### **Purpose and Need Statement**

#### **Introduction and Background**

In conjunction with Maryland's goals to expand freight infrastructure, CSX proposes to construct and operate a new Rail Intermodal Facility (RIF), known as the Baltimore-Washington RIF, to serve the Baltimore, Maryland/Washington D.C. regional area. The RIF is a joint project between CSX and the State of Maryland who have formed a partnership to create an intermodal facility in central Maryland. Currently, CSX has an intermodal facility on leased space at the Seagirt Marine Terminal in Dundalk, Maryland.

The Maryland Statewide Freight Plan (2009) notes:

“While Maryland’s transportation infrastructure accommodates current demand reasonably well, future population and economic growth will outpace capacity.”

Additionally, the Plan also notes that:

“The forecasts and trends indicate that freight demands will more than double in the coming decades. To accommodate this growth the State must ambitiously advance an agenda to provide efficient and expanded freight infrastructure.”

Maryland’s current freight infrastructure is not able to meet future demand without significant investment in freight infrastructure in both public and private sector. The Maryland Statewide Freight Plan provides a basis for the state to advance both high priority projects and policies to improve goods movement throughout the state and region. Furthermore, the Maryland Statewide Freight Plan also notes:

... “Capacity investment is of paramount importance as Maryland positions itself to remain economically competitive, sustain the natural environment, and ensure a high quality of life for Marylanders.”

In order to successfully accommodate the projected increases in freight, Maryland must utilize a fully multimodal approach to container transport. By facilitating the use of multiple modes of transportation, the state can provide shippers with the most appropriate options for their shipping needs. The particular combination of truck and rail intermodal shipping has become a key means for the efficient movement of freight. Under this approach, rail is used for long haul transport and trucks are used for short haul and local deliveries. RIFs are critical components of truck/rail intermodal movements because they enable the containers to be transferred between the two modes. This leads to greater efficiencies in the supply chain, which ultimately saves money and energy, and reduces pollution and highway congestion. Rail is one of the most energy efficient forms of transit. One intermodal train can carry the load of up to 280 trucks, at a significant savings in fuel. Trucks play an important role in short haul transportation, but on a per ton/per mile basis, rail emits 1/10 the pollution (hydrocarbons and diesel particulate) and 1/3 the NOx and carbon emissions, compared with trucks. Without strategically placed RIFs, trucks would be unable to transfer containers to trains, and trains would have no way of transferring containers to trucks.

The Maryland Statewide Freight Plan gave a “high rating” to the relocation of the existing CSX Intermodal Terminal facility from Seagirt Marine Terminal. The existing facility currently handles largely domestic

freight unrelated to its otherwise valuable marine terminal location, and its relocation would meet the following identified priority needs: quality of service, safety and security, environmental stewardship/development plan goals, and connectivity for freight mobility. The Plan notes:

“The projects in the Plan are generally of statewide significance, meaning that they either enhance multistate freight flows or facilitate goods movement to a major freight activity center (e.g. Port of Baltimore).”

A new Baltimore-Washington RIF would accomplish this high priority goal.

CSX’s relocation to a new facility would free valuable seaport space and allow for the full potential of the Panama Canal expansion (Post Panamax) opportunities to be realized at Seagirt as well as provide an optimal, new modern, environmentally-beneficial intermodal facility that serves the future of freight in the region. Approximately 90 percent of the freight activity at Seagirt is for containers transferring domestically between rail and highway modes, with the remaining ten percent involving transfers with ships. With the accommodations for Post Panamax shipments and a need for a modern, green, and expanded intermodal facility to serve current and future domestic overland freight shipping needs, a new intermodal facility in a central Maryland location, south of the Howard Street Tunnel is needed.

### **Project Need**

The RIF is needed to provide a new, modern, green and expanded facility in a central Maryland location to allow for increased freight capacity in the Baltimore/Washington region and to meet current and future demands for freight transportation to and from the central United States as well as the Port of Baltimore. It is anticipated that America’s rail network will need to support increased freight volumes coming from the east coast as a result of the Panama Canal expansion scheduled for completion in 2014. The Port of Baltimore’s capacity expansion to support Post Panamax ships provides an exceptional connection to this opportunity. The Port of Baltimore is further inland than any other Mid-Atlantic port; therefore, freight moving through this Port can efficiently reach the interior of the United States and its consumers.

In addition to the expected increase in ocean-going freight, the proposed RIF will be situated at a transportation cross-roads, enabling it to easily handle freight from neighboring east coast highways, such as I-95, to handle airborne freight from Baltimore-Washington International Thurgood Marshall Airport, and to connect with the planned double-stacking of rail shipments in the region.

Double –stacking is a form of intermodal freight transport where intermodal containers are stacked two high on railroad cars. Introduced in North America in 1984, double stack has become increasingly common, being used for nearly 70 percent of United States intermodal shipments.

The strategic placement of RIFs with double-stacking capability throughout the United States and specifically in central Maryland will address significant economic, safety and environmental needs. High and fluctuating energy prices, highway congestion, and air quality issues have resulted in increased sustainability concerns that eventually burden American consumers through an increase in the price of consumer goods, depletion of resources and decreased safety. Double-stacked rail provides for efficiencies in goods movement that lead to reduced costs, a reduction in greenhouse gas emissions, and less stress on the highway infrastructure.

In a newly released report, the Federal Railroad Administration (FRA) finds that double stack freight rail transportation is up to five times more efficient than truck transportation. The FRA’s “Comparative Evaluation of Rail and Truck Fuel Efficiency on Competitive Corridors” underscores the advantages of

such projects. According to the FRA report, double-stack trains tend to be more fuel efficient than other types of trains. The study also cites increased efficiency, technology improvements and improved railcar designs (Federal Railroad Administration, 2009).

### **Project Purpose**

The purpose of the new intermodal facility is to facilitate and support intermodal freight transportation to relieve highway congestion and to address current and future regional infrastructure and freight distribution needs. The intermodal facility's proximity to existing freight, port, airport and highway infrastructure in the Baltimore/Washington D.C. region and ability to facilitate future economic benefits within the State of Maryland are critical aspects of the project's purpose.

### **RIF Role and Characteristics**

Intermodal transportation includes the movement of domestic and worldwide freight in sealed containers or trailers directly from shippers to warehouses, retail stores, plants, and other businesses. As part of the national and regional transportation systems, RIFs, where containers and trailers are transferred between rail and highway, play a key role in meeting the challenges of freight transport now and in the future. As such, there are certain needs critical from an operations, safety and functional standpoint for the operation of a regional rail intermodal facility in the Baltimore-Washington corridor in Maryland. Based on these critical needs, functional criteria for locating suitable candidate sites for the Baltimore Washington RIF were developed. While each of these first level screening criteria are critical to the viability of a potential site, in some cases, other criteria are specific to the uniqueness of the Baltimore- Washington corridor and market. The functional criteria for a RIF in the Baltimore-Washington region are as follows:

1. A Site Located South of Baltimore's Howard Street Tunnel
2. A Site with at least 70 Contiguous Acres of Usable Land for the Facility
3. A Site with Proximity and Accessibility to a Major Highway
4. A Site with the Required Shape and Configuration
5. A Site Located Adjacent to the CSX Mainline

### **Supplemental Goals, Objectives and Benefits**

Major transportation projects of potentially regional influence, such as the Baltimore Washington RIF, often have supplemental goals, objectives and benefits beyond the basic stated purpose and need for the project. The Mid-Atlantic Rail Operations Study (Phase I, 2002 and Phase II, 2009) prepared by the I-95 Corridor Coalition, identified the following benefits that would accrue as a result of the elimination of choke points and overall rail freight improvements: improved freight service for shippers and receivers; offset the need for more trucks on congested highways; upgraded service for double-stack intermodal containers; enhanced reliability; strengthened the ability to recover from service disruptions; enhanced attractiveness for the redevelopment of underutilized brownfield sites near the rail system; and generally meeting the needs of increased economic and population growth in the region. The Baltimore-Washington area is one of the largest regions on the east coast that is currently not served by an intermodal facility capable of double stacking.

As part of a linked intermodal system, railroads can be an energy efficient way to transport freight, carrying one ton of freight nearly 500 miles on a single gallon of fuel, the equivalent of load of 280 trucks. Also, there is the potential to deliver twice as many goods (with double-stacking) on one trip, resulting in improved efficiency and cost savings. A regional RIF would provide access and further integration of an efficient freight transportation alternative to long-haul trucks.

The supplemental benefits in moving long-haul freight from the highway to trains, including the use of RIFs for goods transfer, would be potential reductions in highway congestion and vehicle miles traveled, improved highway safety, and providing energy-efficient and environmentally-beneficial freight transportation.

In addition, a new RIF in the Baltimore-Washington region allows Maryland to capture shipping-related jobs, business taxes, fees, and economic activity that might otherwise be diverted to competing ports and facilities in neighboring states. Therefore, the construction of a new RIF would both create and preserve jobs in the Baltimore-Washington region.